### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re Application of: Karim Faid, Christophe Py, Farid Bensebaa

Serial No.: not yet assigned 106/4/58

Filed: July 8, 2003

Title: MOLECULARLY-IMPRINTED CHEMICAL DETECTION DEVICE AND

**METHOD** 

Group:

Examiner:

Attorney Ref.: PAT 930-2 US

October 3, 2003

Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450 U.S.A.

Attention: Mail Stop DD

Dear Sirs:

## **INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, the applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

### I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications, or other information submitted for consideration by the Office are listed on the PTO-1449, attached hereto.

### II. COPIES

### (check at least one box)

- a. Submitted herewith is a legible copy of (i) each U.S. and foreign patent and application; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed.
- b. As this application was filed after June 30, 2003, no U.S. patent or published application copies are enclosed. Where applicable, submitted herewith is a legible copy of (i) each foreign patent or application; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed.

c. Some or all of the documents listed on the PTO-1449 are not enclosed because they were cited in the International Search Report and copies should already be in the PTO file. If copies are needed, please contact the undersigned.

# III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

- a. <u>DOCUMENTS IN THE ENGLISH LANGUAGE</u>

  The attached patents, publications, or other information in the English language do not require a statement of relevancy.
- b. <u>DOCUMENTS NOT IN THE ENGLISH LANGUAGE</u>
   A concise explanation of the relevance of all patents, publications, or other information listed that is not in the English language is as follows:
- c. <u>ENGLISH LANGUAGE SEARCH REPORT</u>

  An English language version of the search report or action that indicates the degree of relevance found by the foreign Patent Office is attached, thereby satisfying the requirement for a concise explanation. See MPEP 609(A) (3).
- □ d. <u>OTHER</u>

  The following additional information is provided for the Examiner's consideration.

# IV. THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97 (b): (check one box)

 $\boxtimes$ 

- a. Within three months of the filing date of a national application (37 C.F.R. § 1.97 (b) (1)). No fee or statement is required. (This section is not to be used with RCE's AND CPA's.)
- b. Within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97 (b) (2)). No fee or statement is required.
- c. Concurrently with the filing of a Continued Prosecution Application under 37 C.F.R. § 1.53 (d) or concurrently with the filing of a Request for Continued Examination under § 1.114 (37 C.F.R. § 1.97 (b) (4)). No fee or statement is required.

d. Before the mailing date of a first Action on the merits (37 C.F.R. § 1.97 (b) (3)). No fee or statement is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97 (e) below, or, if no statement has been made, charge our deposit account in the amount of \$180.00 as required by 37 C.F.R. § 1.17 (p).

# V. THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97 (c): (check one box)

- a. No statement; therefore, a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17 (p).
- b. See the statement below. No fee is required.

# VI. STATEMENT UNDER 37 C.F.R. § 1.97 (e) (check only one box)

The undersigned hereby states that

- a. Each item of information contained in the IDS was first cited in any communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS; or
- b. No item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of IDS was known to any individual designated in 37 C.F.R. § 1.56 (c) more than three months prior to the filing of the IDS.
- c. Some of the items of information were cited in a communication from a foreign Patent Office. As to this information, the undersigned states that each item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby states that no item of this remaining information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart from a foreign Patent Office in a counterpart foreign application and, to the best of my knowledge after making reasonable inquiry, was known to any individual designated in the 37 C.F.R. § 1.56 (c) more than three months prior to the filing of this statement.

### **VII.PAYMENT OF FEES**

(check one box)

□ A cheque in the amount of \$180.00 as required by 37 C.F.R § 1.17 (p) is enclosed for the above-identified fee.
 □ Please charge Deposit Account No. 501593 in the amount required by 37 C.F.R. § 1.17 (p) for the above-indicated fee. A duplicate copy of this paper is attached.
 ☑ No fee is required.

If the Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule and charge the appropriate fee to Deposit Account No. 501593.

If the preceding amount is incorrect, any deficiency or overpayment should also be charged or credited to Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP.

Respectfully submitted,

Karim Faid et al.

By: L. Anne Kinsman Registration No. 45,291

BORDEN LADNER GERVAIS LLP

World Exchange Plaza 1100-100 Queen Street Ottawa ON K1P 1J9 Telephone 613-237-5160 Facsimile 613-787-3558 E-mail ipott@blgcanada.com

ALK/sum Encls. 1. PTO-1449

2. References

Rorm P	TO-1449			Complete if Known		
Rorm PTO-1449				Application No.:		
INFO	RMATION	N DISCI	LOSURE	Filing Date:	July 8, 2003	
	EMENT	· DISC:	LOSCILL	First Named Inventor:	Karim Faid et al.	
SIAI				Group Art Unit:		
				Examiner Name:		
Sheet	1	of	2	Attorney Docket No.:	PAT 930-2	

### **U.S. PATENT DOCUMENTS**

Examiner	Cite	Document No.	Date of	Name of Patentee or	Pages, Columns, Lines, Where
Initials	No.		Publication	Applicant of Cited	Relevant Passages or Relevant
			mm-dd-yyyy	Document	Figures Appear
		6,310,110	10-30-2001	Markowitz et al.	
		5,630,978	05-20-1997	Domb	
		6,489,418	12-03-2002	Mosbach	
		6,127,154	10-03-2000	Mosbach et al.	
		5,110,833	05-05-1992	Mosbach	
		2003/0027936	02-06-2003	Murray et al.	
		6,255,461	07-03-2001	Mosbach et al.	

## FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Patent Document No.	Date of Publication mm-dd-yyyy	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	<b>T</b> ✓	Check if English Translation is att
		WO 01/90228	11-29-2001	Mosbach et al.			200
		WO 01/88960	11-22-2001	Polyani et al.			<u>e</u>

## **OTHER DOCUMENTS**

C. Sulitzky et al.: "Grafting of molecularly-imprinted polymer films on silica supports contating surface-bound free radical initiators." Macromolecules 2001.
S. Piletsky et al.: "Molecular imprinting: at the edge of the third millennium." Trends in Biotechnology, vol. 19, no. 1, January 2001, pages 9-12.
A. Friggeri et al.: "From solutions to surfaces: a novel molecular imprinting method based on the conformational changes of boronic-acid-appended poly(L-lysine)." Angew. Chem. Int. Ed., vol 40, no. 24, 2001, pages 4729-4731.
T. Miyahara et al.: "Two-dimensional molecular imprinting: binding of sugars to boronic acid functionalized, polymerized Langmuir-Blodgett films." Chemistry Letters, 2000, pages 1356-1357.
E. Yilmaz et al.: "The use of immobilized templates - A new approach in molecular imprinting." Angew. Chem. Int. Ed., vol. 39, no. 12, 2000, pages 2115-2118.

Examiner Signature:	Date Considered:					
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw						
line through citation if in conformance and not considered. In	clude copy of this form with next communication to					
annlicant						

	2003 yr					
AD'	Form P7	Γ <b>O</b> -1449			Complete if Known	
					Application No.:	
	INFOR	MATIO	N DISC	LOSURE	Filing Date:	
		EMENT	, 2150	Loseite	First Named Inventor:	<del></del>
	SIAIL				Group Art Unit:	
					Examiner Name:	
	Sheet	2	of	2	Attorney Docket No.:	

# **U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No.	Document No.	Date of Publication mm-dd-yyyy	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

# FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Patent Document No.	Date of Publication mm-dd-yyyy	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	<b>T</b> ✓	Check if English Translation is at
							lach
							Ted.
							1

## OTHER DOCUMENTS

H. Shi et al.: "Template-imprinted nanostructured surfaces for protein recognition." Nature, vol. 398, April 1999, pages 593-597.
M. Yan et al.: "Fabrication of molecularly imprinted polymer microstructures." Analytica Chimica Acta, vol. 435, 2001, pages 163-167.
A. Jenkins et al.: "Polymer-based lanthanide luminescent sensor for detection of the hydrolysis product of the nerve agent soman in water." Anal. Chem., vol. 71, 1999, pages 373-378.
K. Mosbach: "Toward the next generation of molecular imprinting with emphasis on the formation, by direct molding, of compounds with biological activity (biomimetics)." Analytica Chimica Acta, vol. 435, 2001, pages 3-8.
"UCSD Chemists Develop Portable Nerve Gas Sensor", Science Daily, Aug. 22, 2000.
O. Ramstrom et al.: "Artificial antibodies to corticosteroids prepared by molecular imprinting", Chem. Biol., vol. 3, no. 6, June 1996, pages 471-477.

Examiner Signature:	Date Considered:
EXAMINER: Initial if reference considered, whether or no	t citation is in conformance with MPEP 609; draw
line through citation if in conformance and not considered.	Include copy of this form with next communication to
applicant	